VERSIONS WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Page 1, lines 16-18

[It generally can] The Service Provider can generally gain access to this equipment via one of the network links or through a dial connection via PSTN or ISDN if such a connection is available on the equipment.

Page 1, lines 24-25

For a user [,] to Telnet to a host or device requires the establishment of [means to establish] a connection through a network to this host or device.

Page 2, lines 23-25

When the router is not a managed router but under [the] user control and management [responsibility], there is no problem since the user can manage it either from the LAN side Ethernet port or the console port. But, when a service provider manages the router, it becomes more complex and expensive to use a low cost router as a result of the addition of an [due to the additional] expensive modem.

Page 3, lines 6-7

These tools are very efficient but have several drawbacks, which prevent them from being used [from using them] in this environment.

Page 3, lines 17-20

Accordingly, the main object of the invention is to [achieve] provide a method and [to provide] a system wherein a user workstation includes a Telnet proxy function enabling a Telnet connection between a Telnet client and a remote device not provided with a modem.

Page 3, lines 26-31 and Page 4, lines 1-2

8

The system comprises a data processing device provided with the proxy function and [being] is connected to the PSTN and to the Telnet manageable device by the intermediary of a Local Area Network LAN, the data processing device [including] includes a proxy means for completing a first Telnet connection with the help desk workstation through the PSTN and for establishing a second Telnet connection with the Telnet manageable device upon receiving a request from the help desk workstation to gain [the] Telnet access to the Telnet manageable device.

Page 4, lines 25-27

The main idea of the invention is to [use] utilize a user workstation which is a data processing device as a modem to solve the security issue raised by [the] access of a help desk workstation to the system of the customer[. as already mentioned.]

Page 5, lines 22-27

If no modem is available on device 120, [the] access to [it] the device is then achieved through a data processing device 110 such as an intermediate host or PC on which [a] Telnet proxy software is implemented. This proxy function is interfaced on [the one hand] one side to the modem port 105 connected to PSTN 130 and on the [other hand] side to the port linked to LAN 125, [itself] which is connected to the device 120 in [the] a preferred embodiment.

Page 6, lines 7-9

In that case, the proxy is not configured through the help desk workstation and is preconfigured to access its IP default gateway which is configured in the host IP stack through the LAN interface or through the serial COM port if it is not reachable via the LAN side.

Page 6, lines 29-31

9

It is also possible to define more [that] than one IP address in the list, either to access the same device on another port if such interface exists or to gain access to another device when the first fails.

Page 7, lines 16-18

The device 120 sends a "reply message" 220 to Telnet Proxy 110 which checks, processes and translates back this message in a "reply" message 230 before [to send] sending it to the Standard Telnet client 100.

Page 7, lines 20-28

The Telnet proxy method for incoming messages from the Telnet client is now described [in] with reference to Fig. 3. First, the system waits for a [telnet] Telnet message from the help desk workstation (step 300) by scanning the incoming TCP/IP packets on the dial access. When a message arrives, [it] the message is checked to determine whether it is received on port 23 associated with the Telnet protocol (step 302). If not, this means that the packet is for another task other than the Telnet proxy and the packet is forwarded to the host of the data processing device according a transparent mode (step 306). Note that another Telnet application cannot be used in parallel with the proxy function on the same interface.

Page 8, lines 13-18

In the [two] first two embodiments wherein the Telnet client is a legacy Telnet client, the connection request (step 312) is responsible [to] for:
[Get] Getting the IP address of the device 120,
[Get] Getting automatically the IP address of LAN interface of device 110, and
[Create] Creating the Telnet connection between the workstation 100 and the device 110, and between the devices 110 and 120.

Page 8, lines 28-31 and Page 9, lines 1-2

10

When a message is received, it is checked to determine whether it is a Telnet command on port 23 as previously noted (step 420). [,] If not, the message is rejected (step 415) and a feedback message is sent to the source. If it is a Telnet command, the command is processed (step 425) as described hereafter, and a new Telnet message is sent to the help desk workstation 100 (step 430).

Page 9, lines 19-20
Then, the modified Telnet message 550 is sent to workstation 100.

Page 11, lines 20-22
The acknowledge message from device 120 allows [to] the release of the session by releaseSession message 629 from proxy 110 to workstation 100.

Page 11, lines 28-31
An automatic Telnet access attempt through [connected] COM ports may also be performed after several connection failures via the LAN port if defined within the proxy function.

In the Claims

Please cancel claims 1-8 and add the following claims:

1.   A data transmission system comprising:

        a help desk workstation having a Telnet client function and connected to a Wide Area Network (WAN) and to the Public Switched Telephone Network (PSTN);
        a modem-less Telnet manageable device operative for communicating with the help desk workstation and to which the help desk workstation may gain access by using a Telnet protocol;

11

a data processing device connected to the PSTN and the Telnet manageable device by a Local Area Network (LAN),

a proxy means connected to the data processing device for completing a first Telnet connection through the PSTN with the help desk workstation and for establishing a second Telnet connection with the Telnet manageable device upon receiving a request from the help desk workstation.

2.   The data transmission system of claim 1, wherein the Telnet client function corresponds to a legacy Telnet client and wherein the proxy means is operative for gaining access to a default gateway configured in the IP stack of the data processing device upon receiving a request from the help desk workstation.

3.   The data transmission system of claim 1, wherein the Telnet client function corresponds to a legacy Telnet client and wherein the proxy means is operative for gaining access to a file having an IP address for using Telnet protocol.

4.   The data transmission system of claim 3, wherein the proxy means is operative for modifying an IP address of a request message received from the help desk workstation before sending the request message with the modified IP address to the Telnet manageable device.

5.   The data transmission system of claim 4 wherein the proxy means is operative for establishing the second connection with the Telnet manageable device through the LAN.

6.   The data transmission system of claim 4, wherein the proxy means is operative for establishing the connection with the Telnet manageable device through a link from a COM port of in the data processing device and a console port in the Telnet manageable device.

7. The data transmission system of claim 1, wherein the Telnet client function corresponds to a proprietary function adapted to make an encapsulation of Telnet commands included in a request sent by the help desk workstation to the data processing device and wherein the proxy means is adapted to receive Telnet commands from encapsulated commands received from the desk workstation.

8. The data transmission system of claim 1, wherein the proxy means comprises a program operative on the data processing device.